The drawing has been indicated as acceptable as filed.

Related Patent Applications

This application is a division of application Serial No. 027067, filed December 20, 2001, now US Patent No. 6,735,985, issued May 18, 2004. This is believed to be especially relevant to this prosecution since claims 1-4 in this application are directed to the product of the method of the claims that issued in the parent application. The pure manipulative step in the claims in the parent application, i.e. twisting an optical fiber as it is drawn, was known in the art prior to the parent application (Onishi et al. patent). The patentable features of the claims in the parent application are the subject of the twisting, i.e. the characteristics of the optical fiber being twisted. Those features are now recited in claims 1-4 as amended. Thus claims 1-4 as amended are believed to be per se patentable.

Rejections

The rejections that are of record and intended to be responded to in this paper are:

Claims 1-4 stand rejected under 103(a) as unpatentable over Onishi et al. in view of Berkey.

Claims 1-4 stand rejected under 103(a) as unpatentable over Onishi et al. in view of Berkey further in view of Geertman.

Argument

Prior to addressing the rejection a brief review of the invention may be

helpful.

The invention is directed at reducing differential mode delay (DMD) in a multimode (MM) optical fiber. A multimode optical fiber is defined, as is well known, by a large core diameter, greater than 30 microns. This is both quantitatively and qualitatively substantially different from a single mode optical fiber, with a core diameter of typically less than 10 microns.

The Examiner has cited Onishi et al. for the basic teaching of twisting a single mode (SM) optical fiber. This reference is similar to those cited by applicant earlier in this prosecution and referred to in applicants' specification. By contrast, applicants recognized that MM optical fibers that suffered DMD due to defects in the core (ovality) could be improved by twisting the deformed fiber. That discovery was based on the geometry of the core. The Examiner recognized this difference.

To address the difference, i.e. the obviousness of twisting a MM fiber, the Examiner cites the Berkey publication. Applicants maintain that the Berkey patent does not address applicants problem (making the solution unobvious and the combination of references unobvious). However, to advance the prosecution and clearly obviate the rejection applicants submit the enclosed Declaration under 37 C.F.R. 1.131, establishing that applicants made the invention prior to the effective date of the reference.

Since the Geertman patent relates to a single mode fiber, and, as the patent states, addresses the same aspect of single mode optical fiber technology as the Hart patent cited by applicants, the rejection of claims 1-4 over Onishi et al. in view of Berkey and Hartman has the same deficiency as the first rejection.

In view of the Declaration and arguments, reconsideration and allowance of

claims 1-4 is requested.

Should the Examiner wish to discuss this matter he is invited to call the undersigned at 757-258-9018.

Respectfully,

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Date: 12.13.05

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